



GS1AWG~GS1MWG

SURFACE MOUNT GENERAL PURPOSE RECTIFIER

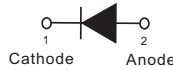
VOLTAGE 50 to 1000 Volt **CURRENT** 1 Ampere

FEATURES

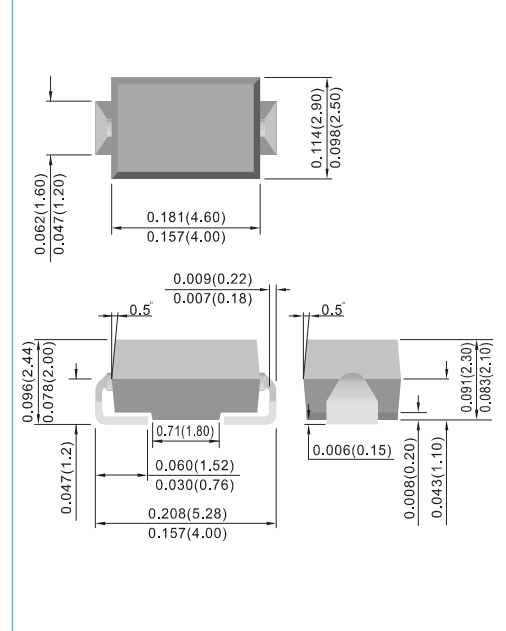
- For surface mounted applications in order to optimize board space
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low Forward Drop
- High temperature soldering : 260°C /10 seconds at terminals
- Glass Passivated Junction
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SMA(W) molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 12 mm tape (EIA-481)
- Weight: 0.002 ounces, 0.068 grams



SMA(W) Unit : inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| PARAMETER | SYMBOL | GS1AWG | GS1BWG | GS1DWG | GS1GWG | GS1JWG | GS1KWG | GS1MWG | UNITS |
|-------------------------------------------------------------------------------------|-----------------|-------------|--------|--------|--------|--------|--------|--------|---------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Current | $I_{F(AV)}$ | 1 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 30 | | | | | | | A |
| Maximum Forward Voltage at 1A DC | V_F | 1.1 | | | | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | 1 | | | | | | | μA |
| Typical Junction Capacitance Measured at 1MHz and applied $V_R=4V$ | C_J | 7 | | | | | | | pF |
| Typical Junction Resistance (Note 1) | $R_{\theta JA}$ | 150 | | | | | | | °C / W |
| (Note 2) | $R_{\theta JL}$ | 15 | | | | | | | |
| (Note 3) | $R_{\theta JC}$ | 4.4 | | | | | | | |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | | | | | | | °C |

Notes: 1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Mounted on a FR4 PCB, single-sided copper, with 76.2 x 114.3mm copper pad area.
3. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.



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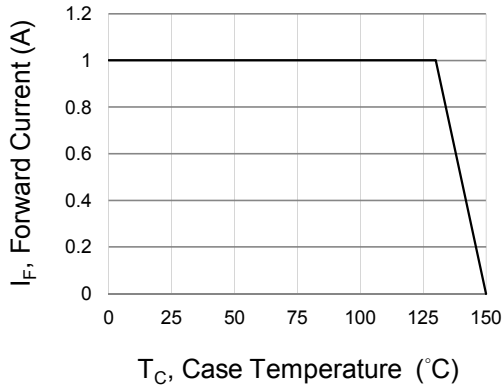


Fig.1 Forward Current Derating Curve

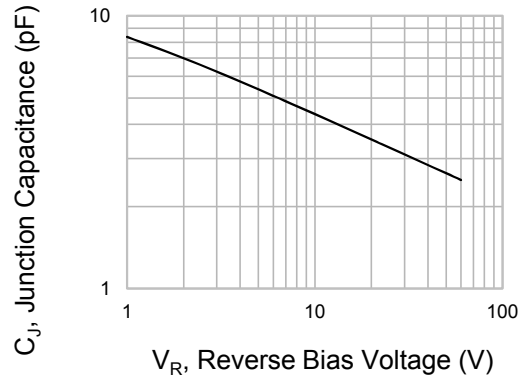


Fig.2 Typical Junction Capacitance

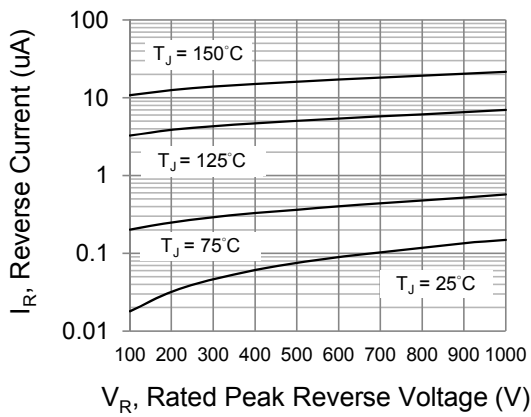


Fig.3 Typical Reverse Characteristics

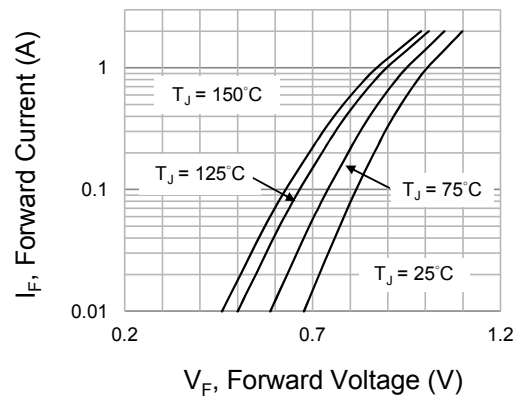


Fig.4 Typical Forward Characteristics

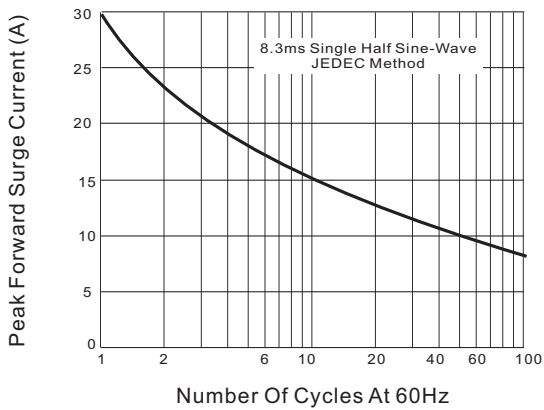
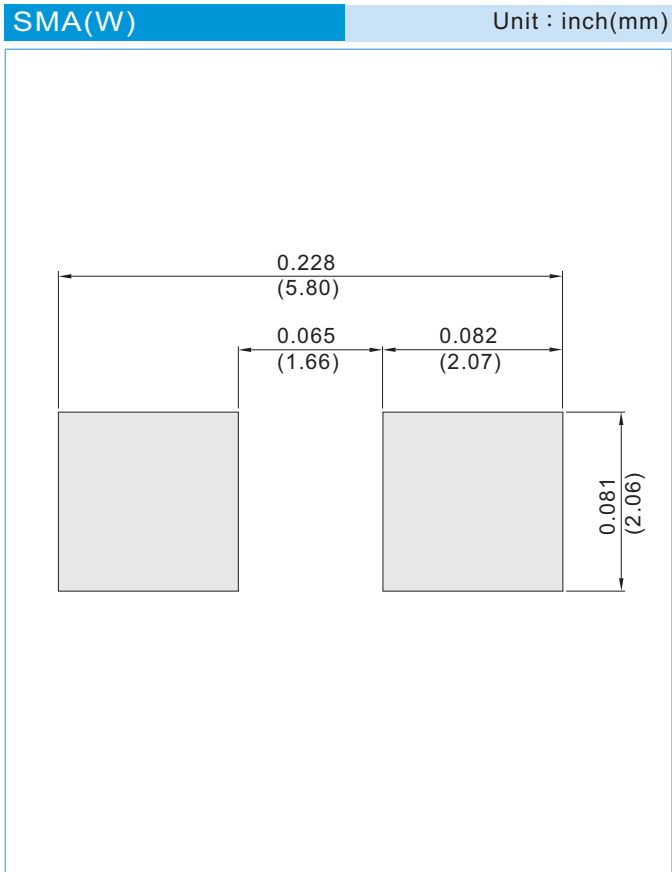


Fig.5-Maximum Non-Repetitive Peak Forward Surge Current



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 7.5K per 13" plastic Reel
 - T/R - 1.8K per 7" plastic Reel



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Part No_packing code_Version

GS1AWG_R1_00001

GS1AWG_R2_00001

For example :

RB500V-40_R2_00001



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



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